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1: NM\_000163. Homo sapiens growth hormone receptor [gi:4503992]

Links

LOCUS GHR 4414 bp mRNA linear PRI 05-NOV-2002  
DEFINITION Homo sapiens growth hormone receptor (GHR), mRNA.  
ACCESSION NM\_000163  
VERSION NM\_000163.1 GI:4503992  
KEYWORDS  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 4414)  
AUTHORS Leung,D.W., Spencer,S.A., Cachianes,G., Hammonds,R.G., Collins,C.,  
Henzel,W.J., Barnard,R., Waters,M.J. and Wood,W.I.  
TITLE Growth hormone receptor and serum binding protein: purification,  
cloning and expression  
JOURNAL Nature 330 (6148), 537-543 (1987)  
MEDLINE 88065896  
PUBMED 2825030  
REFERENCE 2 (bases 1 to 4414)  
AUTHORS Godowski,P.J., Leung,D.W., Meacham,L.R., Galgani,J.P., Hellmiss,R.,  
Keret,R., Rotwein,P.S., Parks,J.S., Laron,Z. and Wood,W.I.  
TITLE Characterization of the human growth hormone receptor gene and  
demonstration of a partial gene deletion in two patients with  
Laron-type dwarfism  
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 86 (20), 8083-8087 (1989)  
MEDLINE 90046742  
PUBMED 2813379  
REFERENCE 3 (bases 1 to 4414)  
AUTHORS Ayling,R.M., Ross,R., Towner,P., Von Laue,S., Finidori,J.,  
Moutoussamy,S., Buchanan,C.R., Clayton,P.E. and Norman,M.R.  
TITLE A dominant-negative mutation of the growth hormone receptor causes  
familial short stature  
JOURNAL Nat. Genet. 16 (1), 13-14 (1997)  
MEDLINE 97285114  
PUBMED 9140387  
REFERENCE 4 (bases 1 to 4414)  
AUTHORS Behncken,S.N., Rowlinson,S.W., Rowland,J.E., Conway-Campbell,B.L.,  
Monks,T.A. and Waters,M.J.  
TITLE Aspartate 171 is the major primate-specific determinant of human  
growth hormone. Engineering porcine growth hormone to activate the  
human receptor  
JOURNAL J. Biol. Chem. 272 (43), 27077-27083 (1997)  
MEDLINE 98001682  
PUBMED 9341147  
REFERENCE 5 (bases 1 to 4414)  
AUTHORS Pantel,J., Machinis,K., Sobrier,M.L., Duquesnoy,P., Goossens,M. and  
Amselem,S.  
TITLE Species-specific alternative splice mimicry at the growth hormone

receptor locus revealed by the lineage of retroelements during  
 primate evolution  
 JOURNAL J. Biol. Chem. 275 (25), 18664-18669 (2000)  
 MEDLINE 20317053  
 PUBMED 10764769  
 COMMENT PROVISIONAL REFSEQ: This record has not yet been subject to final  
 NCBI review. The reference sequence was derived from X06562.1.  
 Summary: Biologically active growth hormone (MIM 139250) binds its  
 transmembrane receptor (GHR), which dimerizes to activate an  
 intracellular signal transduction pathway leading to synthesis and  
 secretion of insulin-like growth factor I (IGF1; MIM 147440). In  
 plasma, IGF1 binds to the soluble IGF1 receptor (IGF1R; MIM  
 147370). At target cells, this complex activates  
 signal-transduction pathways that result in the mitogenic and  
 anabolic responses that lead to growth.[supplied by OMIM].  
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//

Revised: July 5, 2002.

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Dec 13 2002 14:41:17

## HyPhy Documentation: Amino Acid Translation Table: Rate distributions

Note: This table is identical to PHYLIP's translation table.

Character	Translation
A	Alanine (Ala)
C	Cysteine (Cys)
D	Aspartic Acid (Asp)
E	Glutamin Acid (Glu)
F	Phenylalanine (Phe)
G	Glycine (Gly)
H	Histidine (His)
I	Isoleucine (Ile)
K	Lysine (Lys)
L	Leucine (Leu)
M	Methionine (Met)
N	Asparagine (Asn)
P	Proline (Pro)
Q	Glutamine (Gln)
R	Arginine (Arg)
S	Serine (Ser)
T	Threonine (Thr)
V	Valine (Val)
W	Tryptophan (Trp)
Y	Tyrosine (Tyr)
B	D or N (Asn or Asp)
Z	E or Q (Gln or Glu)
X,?	Unknown amino acid (any of the 20)
-	Skipped or unknown (see <a href="#">Deletions and Ambiguities</a> )
.	For sequential file formats is interpreted as '?'. For interleaved formats singnals that '!' should be replaced with the character at the same position in the first sequence.

*HYPHY* provides means for defining custom alphabets and translations. In particular, *HYPHY* recognizes relevant NEXUS blocks. However one must be careful with custom alphabets since they may require model redefinitions.

Sergei L. Kosakovsky Pond and Spencer V. Muse.

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C	CUU CUC CUA CUG	Leu Leu Leu Leu	CCU CCC CCA CCG	Pro Pro CAA CAG	CAU CAC Gln Gln	His His Gln Gln	CGU CGC CGA CGG
A	AUU AUC AUA AUG	Ile Ile Ile Met	ACU ACC ACA ACG	Thr Thr Thr The	AAU AAC AAA AAG	Asn Asn Asn Lys	AGU AGC AGA AGG
G	GUU GUC GUA GUG	Val Val Val Val	GCU GCC GCA GCG	Ala Ala Ala Ala	GAU GAC GAA GAG	Asp Asp Glu Glu	GGU GGC GGA GGG
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